

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°18'48", long 74°35'21" referenced to North American Datum of 1983, West Windsor Township, Mercer County, NJ, Hydrologic Unit 02030105, at bridge on Cranbury Road, 1.0 mi east of Grovers Mill, 1.4 mi southeast of Plainsboro, and 2.0 mi upstream from Cranbury Brook.

DRAINAGE AREA.--42.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1959-65, 1971, 1986-88, 1992-93, 1995, 1998 to current year.

GAGE.--Staff gage.

REMARKS.--Flow includes some sewage effluent.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Date	Discharge, in ft ³ /s
Nov 15, 2007	29.9
Feb 25, 2008	63.3
Jun 2, 2008	36.3
Aug 27, 2008	11.0

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1999 to current year. Published as "at Grovers Mill" (station 01400650) 1976-95, 1997-98.

REMARKS.--Cooperative Network Site Descriptor: Agricultural Land Use Indicator, NJ Department of Environmental Protection Watershed Management Area 10.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. EPA, Region II, Division of Environmental Science and Assessment.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	Instantaneous discharge, ft ³ /s (00061)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
Nov									
15...	0850	Surface water, regular	30	5.5	.085	.067	745	9.6	88
Feb									
25...	1050	Surface water, regular	63	15	.060	.044	757	12.6	97
Jun									
02...	1020	Surface water, replicate	36	5.4	.161	.126	753	8.4	93
02...	1020	QC - Surface water, split replicate	--	--	--	--	--	--	--
02...	1021	QC - Surface water, concurrent replicate	--	--	--	--	--	--	--
Aug									
27...	0935	Surface water, regular	11	2.5	.088	.066	758	7.3	80

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	pH, water, unfltrd field, std units (00400)	Specif- ic conduc- tance, wat unf μS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)
Nov 15...	6.8	297	10.5	11.0	75	12.9	10.3	5.19	21.4	30	38.8	.19	9.5
Feb 25...	6.8	486	5.0	4.1	66	14.2	7.44	3.65	60.1	18	107	.12	8.5
Jun 02...	6.9	286	21.5	20.2	67	12.7	8.62	3.86	22.6	28	40.3	.20	13.2
02...	--	--	--	--	67	12.0	9.00	4.20	24.0	29	45.0	.19	--
02...	--	--	--	--	71	13.0	9.30	4.30	24.0	29	45.0	.23	--
Aug 27...	6.9	394	21.0	19.0	110	16.4	17.5	6.73	28.2	54	39.7	.38	7.4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non- filter- able, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L as P (00666)
Nov 15...	26.6	165	177	4	.28	--	.018	4.95	.12	5.2	5.3	.015	.017
Feb 25...	25.2	E252	251	13	.32	--	.113	3.26	.10	3.6	3.7	E.006	.010
Jun 02...	22.9	159	172	4	.45	--	.063	4.04	E.03	4.5	E4.5	.034	.053
02...	22.0	153	160	<10	1.2	1.1	<.050	4.30	--	5.5	5.4	<.050	<.050
02...	22.0	154	160	<10	E.85	1.3	<.050	4.30	--	E5.1	5.6	<.050	.054
Aug 27...	30.0	222	223	5	.50	--	.042	9.49	<.04	10	--	.163	.187

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Phos- phorus, water, unfltrd mg/L as P (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Boron, water, fltrd, µg/L (01020)
Nov						
15...	.064	.8	<.04	.8	2.5	56
Feb						
25...	.073	1.0	<.04	1.0	2.0	34
Jun						
02...	.100	.3	<.04	.3	3.9	46
02...	.097	--	--	--	5.3	50
02...	.095	--	--	--	4.6	50
Aug						
27...	.209	.2	<.04	.2	3.2	114